

IN THE CLAIMS:

Please amend Claims 1-3, 5-7, 9, 11, 12, 18-20, 26, 28-30, 32-34, 36, 37, and 42 as follows. Note that all claims currently pending in this application are being reproduced below for the Examiner's convenience.

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CY 1. (Currently Amended) A control apparatus for enabling a user to control by spoken commands a function of a processor-controlled machine connectable to a speech processing apparatus, the control apparatus comprising:

receiving means for receiving machine dialog interpretable instructions derived from speech data processed by the speech processing apparatus;

B1 device interface means for communicating with the processor-controlled machine to receive from the processor-controlled machine function information defining the functions available on that processor-controlled machine and machine dialog information defining a machine dialog compatible with the processor-controlled machine for enabling the control apparatus to cause the processor-controlled machine to carry out at least one of the available functions;

dialog determining means for determining from the machine dialog information provided by the processor-controlled machine the machine dialog to be used for communicating with the processor-controlled machine;

dialog communication means for interpreting received machine dialog interpretable instructions using the determined machine dialog and for communicating with the processor-controlled machine using the determined machine dialog to enable information to be

provided to the user in response to received machine dialog interpretable instructions, thereby enabling the user to conduct a spoken dialog with the processor-controlled machine; and

machine communication means for communicating with the processor-controlled machine to cause the processor-controlled machine to carry out a function defined by the function information in accordance with the spoken dialog conducted by the user with the processor-controlled machine,

wherein the processor-controlled machine does not have prior knowledge of the spoken dialog conducted by the user.

2. (Currently Amended) A control apparatus according to claim 1,

wherein the control apparatus is connectable to a network and the dialog determining means is arranged to determine the location on the network of the determined machine dialog.

3. (Currently Amended) A control apparatus according to claim 1, further

comprising storing means for causing the determined machine dialog to be stored in a dialog store of the control apparatus.

5. (Currently Amended) A control apparatus comprising a JAVA virtual

machine for enabling a user to control by spoken commands a function of a processor-controlled machine connectable to a speech processing apparatus, the JAVA virtual machine comprising:

receiving means for receiving machine dialog interpretable instructions derived from speech processed by the speech processing apparatus;

device identifying means for receiving information from the processor-controlled machine relating to a device class of the processor-controlled machine, for determining from the device class the machine dialog to be used with that processor-controlled machine, and for using the JAVA reflection API to determine from the device class information regarding the functions available on that processor-controlled machine,

dialog communication means for interpreting the received machine dialog interpretable instructions using the determined machine dialog;

dialog communicating means for communicating with the processor-controlled machine using the determined machine dialog to enable information to be provided to the user in response to the received machine dialog interpretable instructions, thereby enabling the user to conduct a spoken dialog with the processor-controlled machine; and

machine communication means for communicating with the processor-controlled machine to cause the processor-controlled machine to carry out at least one function determined from the device class to be available on the processor-controlled machine in accordance with the spoken dialog conducted by the user with the processor-controlled machine,

wherein the processor-controlled machine does not have prior knowledge of the spoken dialog conducted by the user.

6. (Currently Amended) A control apparatus according to Claim 5,

wherein the control apparatus is connectable to a network and the dialog identifying means is arranged to determine from the device class the location on the network of the machine dialog for the processor-controlled machine.

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7. (Currently Amended) A control apparatus according to claim 5, further comprising storing means for causing the determined machine dialog to be stored in a dialog store of the control apparatus.

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9. (Currently Amended) A control apparatus for enabling a user to control by spoken commands a function of a processor-controlled machine connectable to a speech processing apparatus, the control apparatus comprising a JAVA virtual machine having:

receiving means for receiving machine dialog interpretable instructions derived from speech data processed by the speech processing apparatus;

device interface means for receiving from the processor-controlled machine information identifying and representing the device class for the processor-controlled machine;

dialog determining means for determining from the information provided by the processor-controlled machine a machine dialog to be used for communicating with the processor-controlled machine;

function determining means for using a JAVA reflection API to determine from the device class information regarding functions available on the processor-controlled machine;

dialog communication means for interpreting received dialog interpretable instructions using the determined machine dialog and for communicating with the processor-controlled machine using the determined machine dialog to enable information to be provided to the user in response to the received machine dialog interpretable instructions; and

machine communication means for communicating with the processor-controlled machine to carry out at least one function determined from the device class to be available on the processor-controlled machine in accordance with spoken dialog conducted by the user with the processor-controlled machine,

wherein the processor-controlled machine does not have prior knowledge of the spoken dialog conducted by the user.

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10. (Previously Amended) A control apparatus according to claim 5, having a job listener registering means for registering a job listener to receive from the processor-controlled machine information relating to events occurring at the processor-controlled machine.

11. (Currently Amended) A control apparatus according to claim 1, wherein a machine dialog has a number of machine dialog states and the dialog communication means is arranged to control the machine dialog state in accordance with the received machine dialog interpretable instructions.

12. (Currently Amended) A control apparatus according to claim 1, wherein the dialog communication means is arranged to supply to the speech processing apparatus information relating to speech recognition grammar to be used for processing speech data in accordance with a machine dialog state.

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13. (Previously Amended) A control apparatus according to claim 1, further comprising audio data receiving means for receiving speech data and audio data transmitting means for transmitting received speech data to the speech processing apparatus.

14. (Previously Amended) A control apparatus according to claim 1, further comprising network interface means for communicating with the speech processing apparatus over a network.

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15. (Previously Amended) A control apparatus according to claim 1, comprising network interface means for communicating with the processor-controlled machine over a network.

16. (Previously Amended) A control apparatus according to claim 1, comprising remote communication means for communicating with at least one of the speech processing apparatus and the processor-controlled machine.

17. (Original) A control device comprising a control apparatus according to claim 1 and an audio input device.

18. (Currently Amended) A voice-control controller comprising a control apparatus in accordance with claim 1 and a speech processing apparatus comprising:

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speech recognizing means for recognizing speech in received audio data using

speech recognition grammar;

speech interpreting means for interpreting recognized speech to provide

machine dialog interpretable instructions; and

transmitting means for transmitting the machine dialog interpretable instructions to the dialog communication means.

19. (Currently Amended) A processor-controlled machine arranged to be connected to a control apparatus in accordance with claim 1, wherein the processor-controlled machine comprises:

machine control circuitry for carrying out at least one function;

storing means for storing information relating to a device class defining a dialog to be used with the processor-controlled machine and functions available on the machine;

a processor for controlling the machine control circuitry; and

means for providing said information to the control apparatus for enabling the dialog determining means to determine the machine dialog to be used with the processor-controlled machine.

20. (Currently Amended) A processor-controlled machine arranged to be connected to a control apparatus in accordance with claim 5, wherein the processor-controlled machine comprises:

machine control circuitry for carrying out at least one function;

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storing means for storing a device class for the processor-controlled machine,  
the device class defining a machine dialog to be used with the processor-controlled machine and  
functions available on the machine;

a processor for controlling the machine control circuitry; and  
means for supplying the device class to the control apparatus.

21. (Original) A processor-controlled machine according to claim 19,  
capable of providing at least one of photocopying, facsimile and printing functions.

22. (Previously Amended) A processor-controlled machine according to  
claim 19, comprising at least one of:

a television receiver, a video cassette recorder, a microwave oven, a digital  
camera, a printer, a photocopier, a facsimile machine, a lighting system, and a heating system.

23. (Previously Amended) A device connectable to a network comprising a  
processor-controlled machine in accordance with claim 19.

24. (Previously Amended) A device according to claim 23, wherein the  
device or the control apparatus is integrated with the processor-controlled machine.

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25. (Original) A device according to claim 23, comprising a separate audio  
input device.



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26. (Currently Amended) A system comprising a plurality of devices in accordance with claim 23, and a speech processing apparatus connectable to the devices via a network, said system comprising:

means for receiving audio data representing speech by a user;

speech recognition means for recognizing speech in the received audio data;

speech interpreting means for interpreting the recognized speech to provide the

machine dialog interpretable instructions; and

transmitting means for transmitting the machine dialog interpretable instructions over the network to at least one of said devices.

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27. (Original) A system according to claim 26, further comprising a look-up service connectable to the network.

28. (Currently Amended) A method of enabling a user to control by spoken commands a function of a processor-controlled machine connectable to a speech processing apparatus, the method comprising a control apparatus carrying out the steps of:

receiving machine dialog interpretable instructions derived from speech data processed by the speech processing apparatus;

communicating with the processor-controlled machine to receive from the processor-controlled machine function information defining functions available on the processor-controlled machine and machine dialog information defining a machine dialog compatible with the processor-controlled machine for enabling the control apparatus to cause the processor-

controlled machine to carry out at least one of the available functions in accordance with a spoken command;

determining from the dialog information provided by the processor-controlled machine a machine dialog to be used for communicating with the processor-controlled machine;

interpreting received dialog interpretable instructions using the determined machine dialog and communicating with the processor-controlled machine using the determined machine dialog to enable information to be provided to the user in response to the received machine dialog interpretable instructions, thereby enabling the user to conduct a spoken dialog with the processor-controlled machine; and

communicating with the processor-controlled machine to cause the processor-controlled machine to carry out a function defined by the function information in accordance with the spoken dialog conducted by the user with the processor-controlled machine,

wherein the processor-controlled machine does not have prior knowledge of the spoken dialog conducted by the user.

29. (Currently Amended) A method according to claim 28, further comprising the step of determining the location on a network of a file for the machine dialog.

30. (Currently Amended) A method according to claim 28, further comprising the step of storing the machine dialog in a dialog store of the control apparatus.

32. (Currently Amended) A method in a control apparatus comprising a JAVA virtual machine for enabling a user to control by spoken commands a function of a processor-controlled machine connectable to a speech processing apparatus, the method comprising the steps of:

receiving machine dialog interpretable instructions derived from speech processed by the speech processing apparatus;

receiving information from the processor-controlled machine relating to a device class of the processor-controlled machine;

determining from the device class the machine dialog to be used with the processor-controlled machine;

using a JAVA reflection API to determine from the device class information, functions available on the processor-controlled machine;

interpreting received machine dialog interpretable instructions using the determined machine dialog;

communicating with the processor-controlled machine using the determined machine dialog to enable information to be provided to the user in response to received machine dialog interpretable instructions, thereby enabling the user to conduct a spoken dialog with the processor-controlled machine; and

communicating with the processor-controlled machine to cause the processor-controlled machine to carry out at least one function determined from the device class to be available on the processor-controlled machine in accordance with the spoken dialog conducted by the user with the processor-controlled machine.

wherein the processor-controlled machine does not have prior knowledge of the spoken dialog conducted by the user.

33. (Currently Amended) A method according to claim 32, further comprising the step of determining from the device class the location on a network of a file for the machine dialog for the processor-controlled machine.

34. (Currently Amended) A method according to claim 32, further comprising the step of storing the machine dialog in a dialog store of the control apparatus.

36. (Currently Amended) A method according to claim 28, wherein the determined machine dialog has a number of machine dialog states and the machine dialog state is controlled in accordance with the received machine dialog interpretable instructions.

37. (Currently Amended) A method according to claim 28, wherein information relating to speech recognition grammar to be used for processing speech data is supplied to the speech processing apparatus in accordance with a machine dialog state.

38. (Previously Amended) A method according to claim 28, further comprising the step of receiving speech data and transmitting received speech data to the speech processing apparatus.

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39. (Previously Amended) A method according to claim 28, further comprising the step of communicating with the speech processing apparatus over a network.

40. (Previously Amended) A method according to claim 28, further comprising the step of communicating with the processor-controlled machine over a network.

41. (Previously Amended) A method according to claim 28, further comprising the step of communicating via a remote communication link with at least one of the speech processing apparatus and the processor-controlled machine.

42. (Previously Amended) A method in a control apparatus comprising a JAVA virtual machine for enabling a user to control by spoken commands a processor-controlled machine connectable to a speech processing apparatus, the method comprising the steps of:

receiving from the processor-controlled machine information identifying and representing a device class for the processor-controlled machine;

determining from the information provided by the processor-controlled machine a machine dialog to be used for communicating with the processor-controlled machine;

using the JAVA reflection API to determine, from the device class information, functions available on the processor-controlled machine;

receiving machine dialog interpretable instructions derived from speech data processed by the speech processing apparatus;

interpreting, using the machine dialog compatible with the processor-controlled machine, received machine dialog interpretable instructions;

communicating with the processor-controlled machine using the machine dialog to enable information to be provided to the user in response to the received machine dialog interpretable instructions, thereby enabling the user to conduct a spoken dialog with the processor-controlled machine; and

communicating with the processor-controlled machine to cause the processor-controlled machine to carry out at least one function determined from the device class to be available on the processor-controlled machine in accordance with the spoken dialog conducted by the user with the processor-controlled machine,

wherein the processor-controlled machine does not have prior knowledge of the spoken dialog conducted by the user.

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43. (Previously Amended) A computer program product comprising processor implementable instructions for configuring a processor to provide a control apparatus in accordance with claim 1.

44. (Original) A computer program product comprising processor implementable instructions for configuring a processor to carry out a method in accordance with claim 28.

S.R. 45. (Previously Amended) A signal comprising processor implementable instructions for configuring a processor to carry out a method in accordance with claim 28.

46. (Original) A storage medium carrying a computer program product in accordance with claim 44.

47. (Original) A computer program product comprising processor implementable instructions for configuring a processor to carry out a method in accordance with claim 32.

48. (Original) A computer program product comprising processor implementable instructions for configuring a processor to carry out a method in accordance with claim 42.

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